REMARKS

In response to the Office Action mailed March 23, 2003, Applicants added claims 97-103. Claims 45-50, 59-62, 64, 65, 85, 87 and 89-103 are presented for examination.

As presented, these claims cover compositions that are in the form of a solution capable of being deposited onto a biaxially textured surface or a single crystal surface and processed in less than about five hours to form a barium fluoride-containing coating that is a precursor for a superconductor film that has a thickness of at least about 0.5 micrometer, has a critical current density of at least about $1x10^6$ Amperes per square centimeter, and includes a rare earth metal, an alkaline earth metal and copper.

Certain claims include additional features. For example, claims 97-103 cover articles that include a biaxially textured surface or a single crystal surface coated in a single coating with a composition that includes a carboxylate salt of a rare earth metal, a fluorinated carboxylate salt of an alkaline earth metal, a carboxylate salt of copper and an alcohol.

The Examiner rejected claims 45-47, 85 and 90-95 under 35 U.S.C. §102(b) as being anticipated by Laine. Although the Examiner did not explicitly state that the rejection was based on a theory of inherent anticipation, it is apparent that inherent anticipation is the basis for the rejection.

The Examiner is reminded that:

> In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art. (M.P.E.P. §2112, citing Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)).

Here, the Examiner has not met this burden.

Laine discloses methods of making superconductors according to a four step process (see, e.g., Laine col. 2, lines 40-54), which is a very different process than that referred to in the claims. Laine does not disclose that any of his steps involve disposing a solution onto a biaxially

textured surface or a single crystal surface. Nor, does Laine disclose how long the steps take. For example, Laine is silent regarding the amount of time step four (pyrolyzing an organometallic matrix to form the superconductor) takes. Further, Laine does not disclose the critical current density of superconductors formed by his process, or the thickness of his superconductors. Simply stated, Laine is silent regarding most of the limitations required by the claims. Even with respect to the constituents in the composition, Laine does not disclose, for example, the particular combination of carboxylate salt of a rare earth metal, fluorinated carboxylate salt of an alkaline earth metal, carboxylate salt of copper and alcohol required by claims 97-103.

As known to those skilled in the art, the amount of time it takes to process a solution to form a superconductor having a particular thickness and a particular critical current density can vary, even for solutions that have similar or identical chemical constituents. Thus, without conceding that such an assumption is correct, assuming *arguendo* that Laine did disclose compositions having the chemical constituents required by claims 45-47, 85 and 90-95, the Examiner has not provided an appropriate basis for concluding that Laine discloses the compositions covered by the claims. Rather, because Laine is so clearly directed to a very different approach to forming a superconductor, there really is no reason to believe that Laine's compositions would ***necessarily*** satisfy the limitations of the claims.

In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection claims 45-47, 85 and 90-95 under 35 U.S.C. §102(b) as being anticipated by Laine.

The Examiner rejected claims 48-50, 59-62, 64, 65, 87, 89 and 96 under 35 U.S.C. §103(a) as being unpatentable over Laine in view of U.S. Patent No. 5,304,533 (Kobayashi).

As explained above, Laine does not disclose the compositions covered by claims 48-50, 59-62, 64, 65, 87, 89 and 96. Nor is there any suggestion to modify Laine to provide such compositions. Laine is directed to a very different process which, on its face, provides no motivation to be modified to provide the process covered by claims 48-50, 59-62, 64, 65, 87, 89 and 96. For example, there is nothing in Laine to suggest an article having a biaxially textured surface or a single crystal surface coated in a single coating with the particular compositions

required by claims 97-103. In addition, according to Laine, his technology satisfies a certain need. (Id. col. 2, line 20-col. 3, line 61). Thus, after reading Laine, one skilled in the art would not have been motivated to modify Laine, let alone to modify Laine to provide the compositions covered by claims 48-50, 59-62, 64, 65, 87, 89 and 96.

Even if one skilled in the art had somehow been motivated to modify Laine's method, one skilled in the art would not have considered the teachings of Kobayashi. Laine and Kobayashi disclose different methods of forming oxide superconductors. As is well known to those skilled in the art, different methods of forming oxide superconductors can generally involve very different compositions, and it is not simply a matter of mixing and matching compositions from different methods. Here, however, the Examiner makes the conclusory assertion that, because Kobayashi purports to disclose an advantage to including an amine in his composition, one skilled in the art would have been motivated to add an amine to the compositions used in Laine's method. But, the Examiner ignores the differences between the methods disclosed by Laine and Kobayashi, and therefore does not properly provide an appropriate factual basis for the asserted motivation to combine the teachings of Kobayashi with Laine.

Further, even if one skilled in the art were somehow motivated to modify Laine using the teachings of Kobayashi, the result would not be the subject matter covered by claims 48-50, 59-62, 64, 65, 87, 89 and 96, at least because, like Laine, Kobayashi fails to disclose that his compositions have the properties required by these claims.

The Examiner's rejection is based on a hindsight analysis where Applicants' own teachings are used against Applicants to provide the motivation for combining references. However, it is well established that such a rejection is improper.

Accordingly, Applicants request reconsideration and withdrawal of the rejection of claims 48-50, 59-62, 64, 65, 87, 89 and 96 under 35 U.S.C. §103(a) as being unpatentable over Laine in view of Kobayashi.

The Examiner rejected claims 45, 48 and 90-95 under §102(b) as being anticipated by Kobayashi. In making this rejection, the Examiner appears to be relying on a purported inherent

anticipation. But, Kobayashi is directed to a very different process than that referred to in the claims. For example, Kobayashi does not disclose that his compositions are disposed on a biaxially textured surface or a single crystal surface. Thus, even assuming *arguendo* that Kobayashi disclosed compositions having the chemical constituents required by claims 45, 48 and 90-95, one skilled the art would understand that the Examiner has not provided sufficient basis to conclude that Kobayashi's solutions and processes would ***necessarily*** allow for the formation in less than about five hours of a superconductor having a thickness of at least about 0.5 micrometer and a critical current density of at least about $1x10^6$ Amperes per square centimeter, as required by claims 45, 48 and 90-95. Certainly, Kobayashi does not disclose a biaxially textured surface or a single crystal surface coated in a single coating with the particular compositions required by claims 97-103. Accordingly, the Examiner has not met his burden in making this rejection, so Applicants request reconsideration and withdrawal of the rejection.

The Examiner rejected claims 59-62 under §102(b) as being anticipated by U.S. Patent No. 4,956,340 (Kimura). The Examiner appears to be relying on an inherent anticipation to make this rejection. However, Kimura is directed to a very different process than that referred to the in claims 59-62. Kimura discloses a process that involves combining certain salts to form a precipitate, collecting the precipitate, and firing the precipitate. (Kimura col. 2, lines 11-30). As a result, even assuming *arguendo* that Kimura disclosed compositions having the chemical constituents required by claims 59-62, one skilled the art would understand that the Examiner has not provided sufficient basis to conclude that Kobayashi's solutions and processes would ***necessarily*** allow for the formation in less than about five hours of a superconductor having a thickness of at least about 0.5 micrometer and a critical current density of at least about $1x10^6$ Amperes per square centimeter, as required by claims 59-62. As a result, the Examiner has not met his burden in making this rejection, so Applicants request reconsideration and withdrawal of the rejection.

Applicants believe the application is in condition for allowance, which action is requested.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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